

DETAILED ACTION

1. Claims 2-8 are presented for examination.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 2-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- a. The following terms lack antecedent basis in the claims:

- i. Claim 8 lines 4 and 6 recite, "a first information unit". It is unclear whether the first information unit of both lines 4 and 6 refer to the same or different unit.

- b. The following terms are not clearly understood in the claims:

- ii. Claim 8 lines 12-13 recite, "establishing communication between the predetermined bus and the predetermined display unit via a second information unit". It is unclear how the second information unit provides for the establishment of communication (i.e. is the second information unit sent from the bus to the display unit to establish the communication? Is the second information unit provided by the central unit?).
- iii. Claim 8 lines 24-25 recite, "based on the information contained in the second information unit, deleting the bus destination information from

the predetermined display unit". It is unclear whether the bus destination information is *always* deleted upon receiving a second information unit, or *only* deleted if the key code in the second information unit matches the previously received key code.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schmier et al. (US Pat No. 6,006,159) in view of Gehrig (US Pat No. 5,937,358).

6. Regarding claim 8, Schmier teaches a method for prioritized processing of information transmitted via wireless communication between centers and buses and display units of a traffic control system comprising:

communicating a first information unit assigned to a predetermined bus from a central unit to the predetermined bus (col 4 lines 54-60 and col 5 line 66 to col 6 line 42, wherein information is sent from the central processor to buses);

communicating a first information unit assigned to a predetermined display unit at a bus stop from the central unit to the predetermined display unit (col 4 lines 54-60,

wherein the central processor sends the same information to particular display units operating in the system);

displaying at the predetermined display unit bus destination information included in the first information unit assigned to the predetermined display unit (col 5 lines 18-32).

7. Schmier does not teach establishing communication between the predetermined bus and the predetermined display unit via a second information unit; determining if the predetermined display unit has previously received a key code transmitted with the first information unit assigned to the predetermined display unit; determining if the key code previously received by the predetermined display unit corresponds to another key code contained in the second information unit; processing information contained in the second information unit with priority by the predetermined display unit if the previously received key code corresponds to the another key code contained in the second information unit; and based on the information contained in the second information unit, deleting the bus destination information from the predetermined display unit.

8. Gehrig teaches a method of efficient use of network bandwidth between central and peripheral units of a traffic guidance system (col 1 lines 15-17). Gehrig teaches that peripheral units (i.e. buses and display units) communicate using other means when they are in close proximity to each other (col 1 lines 24-28 and 42-44) allowing for spontaneous departure messages to be transmitted (col 5 lines 12-14 and col 8 lines 29-32). Gehrig advocates using this method since peripheral system units are running to capacity as a result of the polling operating by the master terminal (col 2 lines 13-22).

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9. It would have been obvious to one of ordinary skill in the art at the time of the invention, to modify Schmier to allow buses and display units to communicate with each other. One would be motivated by the desire to reduce the use of network bandwidth as taught by Gehrig.

10. It also would have been obvious to one of ordinary skill in the art at the time of the invention to utilize some sort of identification/key code so that buses could be uniquely identified by the display units. One would be motivated by the desire to allow the display units to update the information pertinent to a particular bus that is within range of the display unit as in the system of Gehrig. Furthermore, it would have been obvious to one of ordinary skill in the art to process such information with priority. One would be motivated by the desire to update the display unit with information of nearby buses as quickly as possible to provide users with the most updated information.

11. Regarding claim 2, Gehrig teaches that communication between the buses and display units takes place on a different frequency than the frequency that is used for communication between at least one central unit and the buses and display units (col 1 lines 24-28).

12. Regarding claim 3, Gehrig teaches that communication between the buses and display units takes place in the infrared range (col 1 lines 42-44).

13. Regarding claim 4, Schmier and Gehrig do not teach that the communication between the buses and display units takes place on the same frequency as is used for communication between at least one central unit and the buses and display units, but that the transmitter power for the communication between the buses and display units is reduced to such an extent that the range is limited to the immediate environment of a bus unit.

14. It would have been obvious to one of ordinary skill in the art at the time of the invention to include transmitting on the same frequency when communicating with both the central unit and buses and display units. One would be motivated by the desire to reduce the complexity of the radio used in the devices.

15. Regarding claim 5-6, Schmier and Gehrig do not teach using information that specifies the type of prioritized processing.

16. It is well known in the art to implement quality of service (QOS) protocols for processing of messages. One would be motivated by the desire to ensure that a desired level of effort is made in the networked computer system of Gehrig and Felt.

17. Regarding claim 7, Schmier and Gehrig do not teach that after a prioritized processing has been completed, the key code in the relevant display unit is expended.

18. It would have been obvious to one of ordinary skill in the art at the time of the invention to include expending the key code. Since the bus information is deleted by the display unit, there is no reason to save the key code.

Response to Arguments

19. Applicant's arguments with respect to claims 2-8 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ERIC C. WAI whose telephone number is (571)270-1012. The examiner can normally be reached on Mon-Fri, 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng - Ai An can be reached on 571-272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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